Agricultural Order R3-2012-0011

Tier 1

Tier 2

Tier 3

Grower Workshop May 2012



Angela Schroeter, Program Manager Agricultural Regulatory Program Central Coast Water Board

Assistance Available for Growers

- Technical assistance providers
- Private industry consultants
- Financial assistance (Grants, Loans, Cost-Share)
- Central Coast Irrigation and Nutrient Mgmt Program (Proposition 84 Grant)
 - Monterey Bay Sanctuary Foundation
 - Resource Conservation District of Santa Cruz Co.
 - Cachuma Resource Conservation District
- Water Board Workshops (Ag Order, eNOI)
- Online Resources for Growers
- To receive timely updates sign up for email subscription
 http://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/index.shtml

Handouts

- Compliance Calendar
- Index Cards Please write down your questions!

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Overview

- Introduction
- Who is the Water Board?
- Agricultural Order R3-2012-0011
- Criteria for Tiers
- Compliance Calendar
- ALL Tiers (Tier 1, Tier 2, Tier 3)
- Tier 2
- Tier 3
- Assistance for Growers
- Questions









Agricultural Order R3-2012-0011

- March 15, 2012 Board adopted updated requirements
- Effective immediately
- Regulates discharges of waste from irrigated lands
- Three tiers based on relative risk to water quality
- Current Enrollment:

397,387 Irrigated Acres

1830 Operations / 4092 Farms

What is the purpose of the Agricultural Order?

Requires farmers and landowners to implement management practices, and conduct monitoring and reporting, to ensure that farms are not polluting surface water or groundwater.









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Agricultural Water Quality Concerns

- Irrigation runoff
- Stormwater runoff
- Drainage water that percolates to groundwater
- Operational spills
- Pesticides
- Nutrients
- Salt
- Soil, silt, sediment
- Trash



Old Salinas River, 2007

What does the Agricultural Order apply to?

- Land planted to row, vineyard, field and tree crops where water is applied for producing commercial crops;
- Specific commercial nurseries, nursery stock production, and greenhouse operations;
- Land planted to commercial crops that are not yet marketable, such as vineyards and tree crops.



Tiers and Criteria

Based on relative risk to water quality and discharge

Tier 1 (Lower Risk)

- NO chlorpyrifos or diazinon applied,
- NO impaired surface water or public drinking water well, AND
- If nitrogen loading crop, must be less than 50 acres.
- OR Certified Sustainable-In-Practice (SIP).

Tier 2

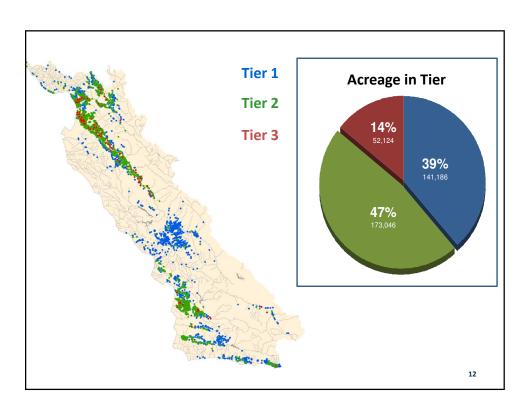
- Chlorpyrifos or diazinon applied,
- · Impaired surface water or public drinking water well, OR
- If nitrogen loading crop, between 50 500 acres.

Tier 3 (Higher Risk)

- Chlorpyrifos or diazinon applied, and discharge to impaired surface water; OR
- If nitrogen loading crop, greater than or equal to 500 acres.

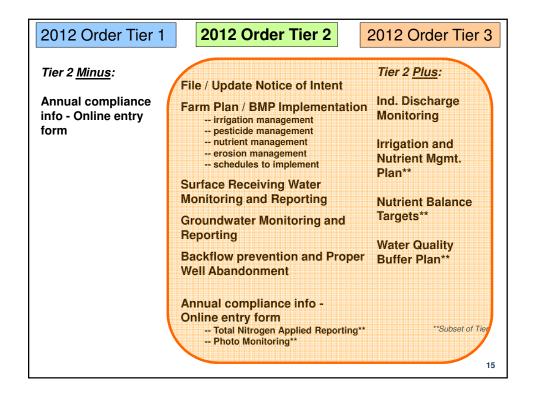
How do I know my tier?

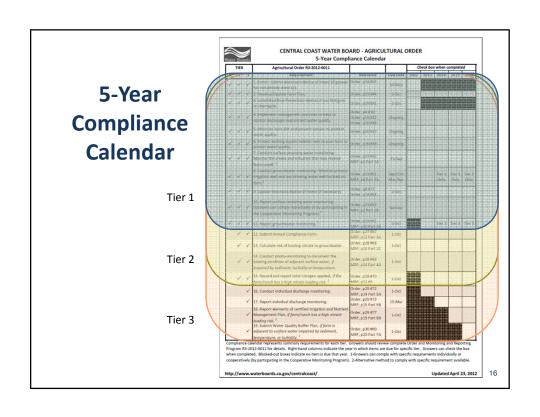
- Agricultural Order Tier criteria (p.16)
- Displayed on electronic-Notice of Intent (eNOI)
- Water Board letter (May 17, 2012)
- Grower can request tier review
 - Incorrect tier
 - Request EO approval to move to lower tier
- Contact Water Board staff



2012 Order Tier 2 2012 Order Tier 1 2012 Order Tier 3 Tier 2 Minus: Tier 2 Plus: File / Update Notice of Intent **Annual compliance** Ind. Discharge Farm Plan / BMP Implementation info - Online entry Monitoring -- irrigation management form -- pesticide management -- nutrient management Irrigation and -- erosion management **Nutrient Mgmt.** -- schedules to implement Plan** Surface Receiving Water Monitoring and Reporting **Nutrient Balance** Targets** **Groundwater Monitoring and** Reporting Water Quality **Backflow prevention and Proper** Buffer Plan** Well Abandonment Annual compliance into -Online entry form -- Total Nitrogen Applied Reporting** **Subset of Tier -- Photo Monitoring* 13

2012 Order Tier 1 2012 Order Tier 2 2012 Order Tier 3 Tier 2 Minus: Tier 2 Plus: File / Update Notice of Intent **Annual compliance** Ind. Discharge Farm Plan / BMP Implementation Monitoring info - Online entry -- irrigation management form -- pesticide management -- nutrient management Irrigation and -- erosion management **Nutrient Mgmt.** -- schedules to implement Plan** **Surface Receiving Water** Monitoring and Reporting **Nutrient Balance** Targets** **Groundwater Monitoring and** Reporting Water Quality **Backflow prevention and Proper** Buffer Plan** Well Abandonment Annual compliance info -Online entry form -- Total Nitrogen Applied Reporting** **Subset of Tier -- Photo Monitoring** 14





Enroll

- Submit electronic-Notice of Intent (eNOI)
- Operation info
- Farm/Ranch info
- Acreage, crop type, irrigation type, tailwater, etc.
- eNOI used to determine tier
- Update annually (Oct)
- Contact Water Board staff



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Requirements – ALL Tiers

Continued...

Develop or Update your Farm Plan

- October 1, 2012
- Identify water quality issues on farm, and for nearby creeks and groundwater.
- Elements:
 - Irrigation, Pesticides, Nutrients, Salinity, Sediment and Erosion control, and Aquatic habitat protection.
- Implement management practices
- Evaluate what's working and adapt
- Kept on farm
- New template available (www.agwaterquality.org)





How do I know the water quality conditions in my local area?

Surface Water:

- Agricultural Order Table 1, List of Impaired Waterbodies (p.33)
- Central Coast Ambient Monitoring Program (www.ccamp.org)

Groundwater:

GeoTracker
 http://geotracker.waterboards.ca.gov/gama/

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Requirements – ALL Tiers

Continued...

- Minimize bare dirt
- Prevent erosion
- Protect aquatic habitat
- Manage containment structures
- Proper handling and storage of chemicals
- Control trash







Continued...

Install Backflow Prevention

- October 1, 2012
- If you fertigate or chemigate
- Must maintain
- Comply with DPR, County requirements
- List of Resources



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Requirements – ALL Tiers

Continued...

Proper Well Abandonment

- October 1, 2015
- Comply with Department of Water Resources Well Standards (Sec. 20-23)
- To ensure groundwater supply is protected and preserved for further use
- Abandoned = permanently inactive; not used for at least one year; no intention to use the well again
- Local funding may be available
- List of Resources

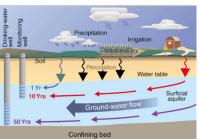


Continued...

Conduct Groundwater Monitoring

- Sept/Oct 2012
- March/April 2013
- Primary irrigation well on farm
- Drinking water well on farm
- Nitrate, General Minerals, Field parameters
- Depth to groundwater
- Use GeoTracker lab
- Guide and List of Resources





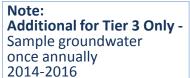
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Requirements – ALL Tiers

Continued...

Conduct Groundwater Monitoring

- Sampling by qualified third-party
- Proper sampling methods
- Quality Assurance/Quality Control protocols
- Chain of Custody
- Guide and List of Resources







Continued

Groundwater Monitoring Alternatives

- Existing nitrate data, less than 5-years old.
- Existing local groundwater study
- Cooperative monitoring

Groundwater Reporting

- October 1, 2013
- Lab uploads results to GeoTracker using eNOI information.
- Guide and List of Resources



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Requirements – ALL Tiers

Continued...

Conduct Surface Receiving Water Monitoring and Reporting

- Sept 15, 2012
- Water in creeks, rivers
- Can comply as individual or cooperatively
- Cooperative Monitoring Program (implemented by Preservation, Inc).
- Includes metals, nutrients, pesticides, toxicity, and benthic invertebrates
- Flow
- Dry and wet season
- Sampling and Analysis Plan
- Report data electronically to Central Coast Ambient Monitoring Program (CCAMP)



Continued...

Surface Receiving Water Monitoring

Cooperative Monitoring Program

- Already in place and approved
- Cost-effective
- Reduced State fee
- Choose option on eNOI
- Contact Preservation Inc. (www.ccwqp.org)



- Develop Sampling and Analysis Plan
- Must be approved
- Increased State fee
- Choose option on eNOI



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Requirements – ALL Tiers

Continued...

Annual State Fees

Cooperative Monitoring Program participant:

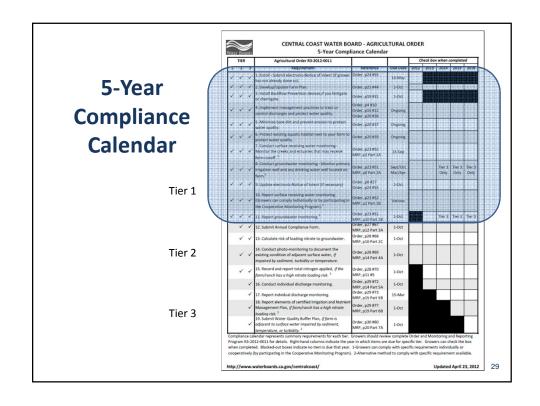
- Reduced State fee
- \$0.56 per acre of land (plus \$100 per group)



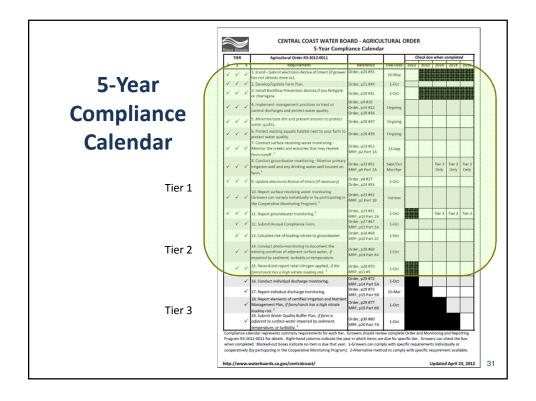
Individual:

Acres	State Fee (Ind)	Min	Max
0-10	\$300 + \$10/Acre	\$300	\$400
11-100	\$750 + \$5/Acre	\$805	\$1250
101 - 500	\$2000 + \$2.50/Acre	\$2253	\$3250
501+	\$4000 + \$2/Acre	\$5002	\$6500





Questions?



Additional Requirements Tier 2 and Tier 3

Annual Compliance Form

- October 1, 2012 (annually)
- Information about discharge and threat to water quality
- Evaluation of nitrate loading risk (2 alternatives)
 - Water Board nitrate loading risk factors
 - UC Nitrate Hazard Index
- Identification of practices implemented
- · Methods to evaluate if practices are working
- Progress towards water quality improvement

Additional Requirements Tier 2 and Tier 3

Annual Compliance Form (continued)

If farm/ranch has high nitrate loading risk:

- October 1, 2014, report total nitrogen applied per acre
 - Farm/Ranch or Nitrate Loading Risk Unit
- · Alternative: groundwater discharge monitoring
- Guide and List of Resources



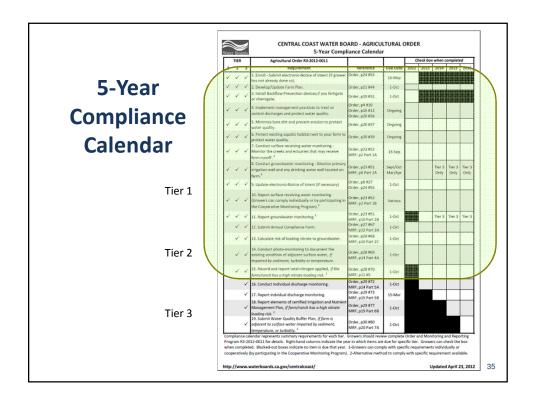
Additional Requirements Tier 2 and Tier 3

Annual Compliance Form (continued)

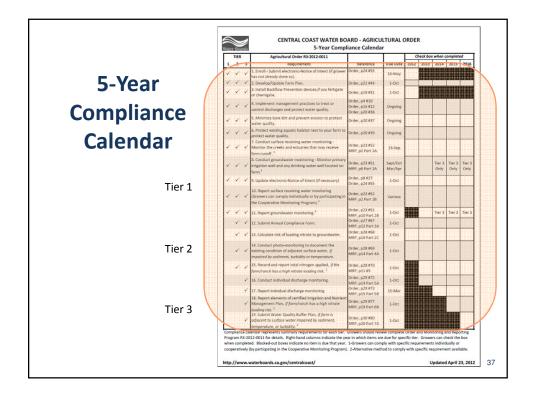
If farm/ranch contains or is adjacent to surface water impaired for temperature, turbidity or sediment:

- October 1, 2012, submit photo monitoring to document condition of stream, riparian, wetland area, bare soil, practices implemented.
- Agricultural Order Table 1, List of Impaired Waterbodies (p.33)
- · Guide and List of Resources





Questions?



Additional Requirements Tier 3 ONLY

Individual Discharge Monitoring and Reporting

- October 1, 2013
- Tailwater, tiledrain, surface containment and stormwater discharges
- Flow/Volume, field parameters
- Nutrients
- Pesticides and toxicity
- 2x 4x per year during dry season, based on acreage
- 1x 2x per year during wet season, based on acreage
- Sampling and Analysis Plan
- Report results in 2014

Additional Requirements Tier 3 ONLY

<u>Irrigation and Nutrient Management Plan</u>

Only if farm/ranch has high nitrate loading risk

- · Certified Crop Advisor
- October 1, 2015, report elements in Annual Compliance Form
- Report progress toward Nitrogen Balance Ratio targets (total nitrogen applied: crop need)
- October 1, 2016, report on effectiveness of plan
- Alternative groundwater discharge monitoring
- · Guide and List of Resources

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Additional Requirements Tier 3 ONLY

Water Quality Buffer Plan

Only if farm/ranch contains or is adjacent to surface water impaired for temperature, turbidity or sediment.

- October 1, 2016
- Purpose is to protect adjacent surface water from discharge.
- Begin implementation of plan immediately
- Alternative demonstrate discharge is sufficiently controlled or treated.

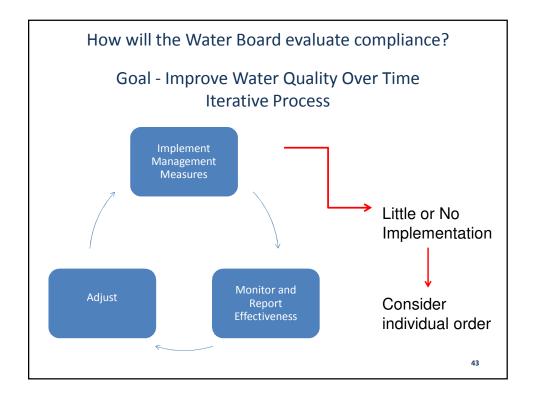
Additional Requirements Tier 3 ONLY

Time Schedules

Effectively control discharges:

- October 1, 2014 pesticides and toxicity
- October 1, 2015 sediment and turbidity
- October 1, 2016 nutrients
- October 1, 2016 nitrate discharge to groundwater
- NOT a requirement to meet water quality standards in receiving water.
- Evaluate compliance by measuring progress compared to milestones and other factors.

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Cooperative Water Quality Improvement Efforts

- Cooperative group efforts
- Subwatershed, watershed, local scale
- Examples: treatment wetland, managed aquifer recharge, bioreactors
- Alternative monitoring and time schedules allowable
- Proposals evaluated by Technical Advisory Committee
- Approved by Executive Officer

Summary

- Agricultural Order R3-2012-0011
- Goal is to protect water quality
- Order includes tiers based on risk to water quality
- Order requires management practices based on farm and nearby creeks and groundwater
- Monitoring and reporting increases with tier
- Alternatives available
- Iterative, adaptive approach
- Grower assistance







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Thank you

Contact Information:

Angela Schroeter, Agricultural Regulatory Program Central Coast Water Board 805/549-3147

Watershed Contacts:

Water Board Staff List

Water Board Website:

http://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag waivers/index.shtml